

REMARKS

The examiner objects to the specification for certain informalities. These are remedied by the foregoing amendments to the specification.

The application includes claims 3-16 prior to entering this amendment. (Claims 1-2 and 17-22 stand withdrawn.)

The examiner rejected claims 3-15 under 35 U.S.C. § 102(e) as being anticipated by Hundscheidt (U.S. Patent Pub. No. 2004/0233907); and the examiner rejected claim 16 under 35 U.S.C. § 102(b) as being anticipated by Birdwell (U.S. Patent 6,041,359). Applicant respectfully traverses these rejections for the reasons explained below.

The applicant amends claims 3, 6, 7, 13 and 16. Claim 4 is canceled. New claims 23-29 are submitted. The application remains with claims 3, 5-16 and 23-29 after entering this amendment.

The applicants add no new matter and requests reconsideration.

Claim Rejections Under 35 U.S.C. § 102

The Examiner doubtless is aware that *anticipation* requires that every limitation of the claim be found in the reference, arranged in same manner as described in the claim. Such is not present here for at least the reasons explained below. Accordingly, reconsideration and withdrawal of the rejections is requested.

Claim 3 is not anticipated

Claim 3 is currently amended to clarify the context of the described methodology.

“3. (Currently amended) A method of establishing communications in a centralized, connection-oriented network, the method comprising:

determining that a connection needs to be established in response to receiving a request for a connection from an application in a device in the centralized network;

generating a connection type and a connection specification;

requesting a connection from a central coordinator;

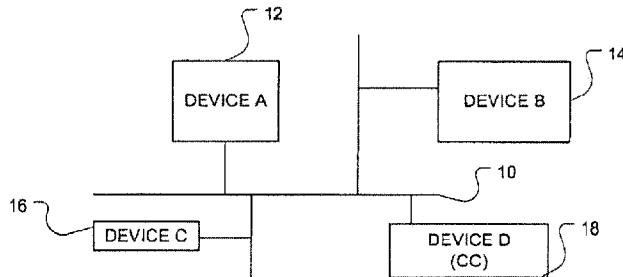
if the connection is granted, associate a connection identifier with an originating service access point; and

associate predefined parameters with the connection identifier.”

A. First, Hundscheidt is not applicable to a *centralized network* of the type described in claim 3. A *centralized network* has a single central controller or “CC” (24 in the illustrative embodiment of FIG. 2), that communicates with every device on the network, and manages all communications among them.¹ See applicant’s FIG. 1 reproduced below:

5⁷⁸

Figure 1



“A centralized communication system, or centralized network, as those terms are used here is a network or communications system that relies upon some device to control connections in the system or network. For example, a power line communication (PLC) network is shown in FIG. 1.” … “In the example of FIG. 1, the activity of every device in the network is controlled by a central entity called the ***Central Coordinator*** (CC). Alternative systems are distributed in nature and such systems do not have a CC.”² The wireless telecommunication network described in Hundscheidt is an example of just such a distributed alternative system. The very title is “Multicast in Point-to-Point Packet Switched Oriented Networks.”

Applicant’s claim 3, by contrast, is a method of operation in a connection-oriented network. For these reasons, among others, Hundscheidt clearly does not anticipate the claim.

Further, Hundscheidt describes aspects of a wireless telecommunications network. (Although a wireless network may have a “central controller” in the sense of equipment to monitor operation of the network at a high level, there is no central controller, or *centralized*

¹ Specification at page 2, beginning of detailed description of preferred embodiments.

² Specification at page 2, lines 29-35.

network as expressly defined in this case.)³ Thus, Hund does not disclose the claim step of, “requesting a connection *from a central coordinator*.” For at least these reasons, claims 3 and 5 should be allowed. (Claim 5 is not argued as being independently patentable.)

Claim 6 is not anticipated

Further regarding **claim 6**, the claim term *service access point* may be a source of confusion. In the wireless local network world, “access points” set up in a home or business are known. They communicate with nearby wireless devices, for example workstations or peripheral devices, over a radio channel. Similarly, in wireless telecom, it is fundamental that mobile stations (MS) (e.g., cell phones) communicate with “base stations” installed on nearby towers or buildings. Those might be termed a service access point, but in the present case a “service access point” is given a different meaning. The networked devices themselves implement service access point functionality:

“As part of supplying convergence in the centralized communication system, the [network] devices are provided with *service access points*. ***Each service access point is specific to a particular kind of data, and may also be associated with either a connection-oriented protocol, like PLC networks, or a connectionless protocol, such as Internet Protocol.*** Generally, when an application is installed on a device, the service access point for the type of data produced by that application would be associated with the application.”⁴ “This association allows the transport layer to further analyze data received from the application for transport.”⁵

Claim 6 is amended to clarify the antecedent basis and functional relationships, as follows:

6. (Currently amended) The method of claim [[5]] 3, generating a connection type further comprising including:

identifying a service access point associated with the requesting application; and
generating a connection type based upon [[a]] the identified service access point of an the
requesting application.

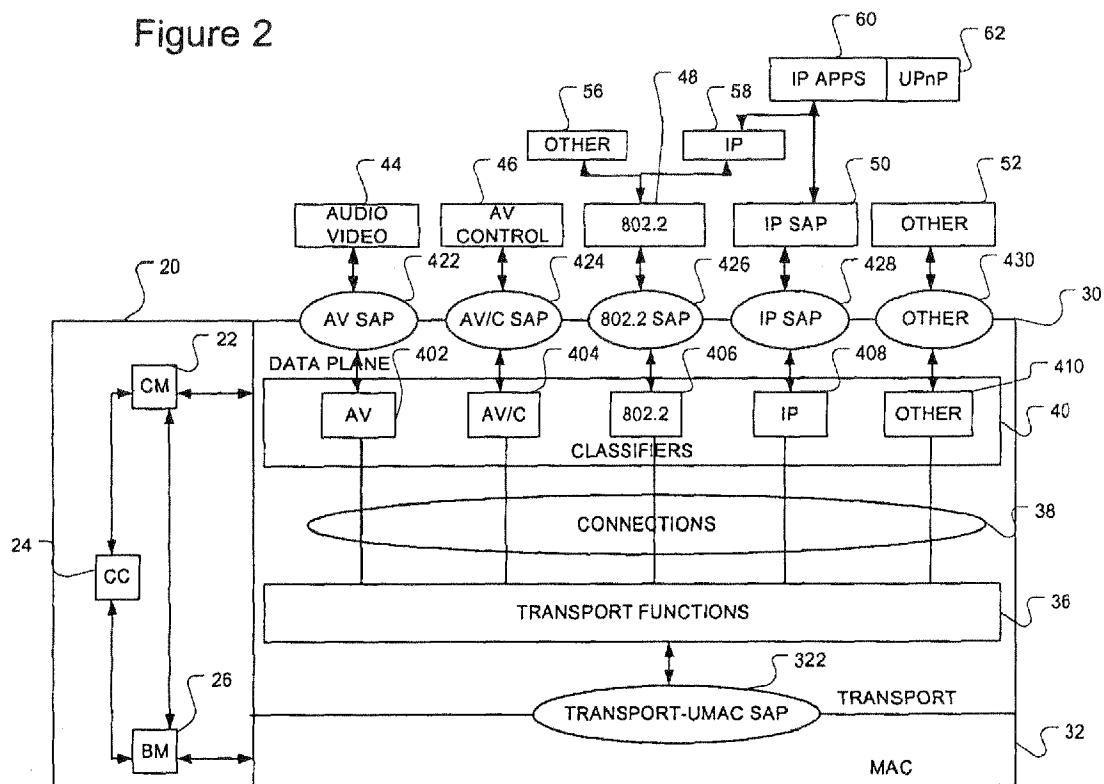
³ A centralized network, as explained in the specification, is one in which all nodes (devices) on the network share a common physical layer medium for communication. That is, each device or node is connected (or otherwise coupled or connectable) to a common physical connection with all the other devices. The problem presented is to “take turns” or share the medium, meaning that each of the connected devices must behave in an appropriate manner.

⁴ Specification at page 4, lines 19-24 (emphasis added).

⁵ Specification at page 4, lines 25-26.

For example, Applicant's FIG. 2 (below) illustrates one embodiment of, "a device usable in a centralized communication system."⁶ See service access points **SAP 422, 424, 426** etc.

Figure 2



The Examiner pointed out Hundscheidt paragraph [0112] and figure 7. It shows classes of service (which are not claimed to be new *per se*), but again, Hundscheidt is inapposite. It discloses techniques for implementing multi-casting in a packet-switched oriented telecom network (namely, UMTS/GPRS).⁷ Briefly, HDS teaches using the local SGSN to replicate messages to a pre-determined group of recipient users within its territory.⁸ In some cases, the gateway router (GGSN) also participates in replicating the multi-cast message as appropriate to multiple SGSN's.⁹ The "users" are terminal equipment (i.e., TE or UE, or "mobile station," for example a cell phone).¹⁰ Importantly, HDS discloses methods that are implemented in the telecom network, as distinguished from the terminal equipment. HDS neither discloses nor

⁶ Specification at page 2, lines 12-13 (Brief Description of the Drawings).

⁷ See Hundscheidt, Abstract, [0027].

⁸ See Hundscheidt, [0028] and pages 3-4 generally.

⁹ See HDS at Fig. 5, Fig. 6, Fig. 16, [0027]-[0034], [0081]-[0090].

¹⁰ See HDS at [0029].

requires any changes to the standard terminal equipment, for example a GPRS-enabled cell phone. Essentially, HDS seeks to improve multi-casting efficiency by moving the functionality from the edge router or the Internet into the telecom network itself.¹¹ All that is independent of the terminal equipment served.

In the present application, and specifically in claim 6, the *service access point* is a part of a device connectable to a centralized network; it is not part of the network per se. Indeed, we now return to one of the fundamental distinctions at hand – the relevant network. As noted above, a *centralized network* as defined in this case provides a common physical layer connection for communication among all network devices. HDS expressly distinguishes itself from this case, as follows:

“Local area networks have supported multicasting for years. For networks, where nodes share a common communication medium multicasting is easy to support. A specially addressed packet can be read off the communication medium by multiple hosts.”¹²

HDS does not disclose providing a *service access point* in a network device that is specific to the type of data being produced by a given application on that device. Neither does HDS disclose “generating a connection type based upon the identified service access point of the requesting application” as per claim 6. The Examiner observes that in HDS, the SGSN translates a connection ID to a connection based on mobile id, but that is not establishing a connection type and, even if the SGSN did assign a connection type based on mobile id, that selection is not based upon the service access point as defined here. In accordance with the present disclosure, a device on the network (which the Examiner apparently would analogize to a mobile telecommunications device)¹³ does not establish a connection type merely by device id. To the contrary, a single device can service multiple different data sources (applications), with a specific *service access point* being associated with each of them, as illustrated in applicant’s figure 2 (above). For these additional reasons, claim 6 plainly is not anticipated and should be allowed, as well as claims 7-12.

¹¹ HDS at [0052]-[0057].

¹² HDS at [0004].

¹³ See Office action, page 3. Applicant does not agree with the analogy. Even if applicable, such an analogy would not support anticipation.

Dependent Claims 7-12 are Not Anticipated

Further regarding claim 7, the Examiner relies on HDS and posits that, “Mobile station is the application requesting traffic flow which requests a TLMG.”¹⁴ The reference does not anticipate this claim, first, for the reasons explained above with respect to the base claim. Further, the Examiner seems to misread HDS in that the mobile station there *receives* a multi-cast message by subscribing to the TLMG group; the mobile station does not *request* a TLMG connection. Put another way, as the Examiner is aware, there is nothing special about the Iu interface in the case of receiving a multi-cast message. Claim 7 should be allowed.

Regarding claim 8, the Examiner suggests that simply because a mobile station according to HDS can join, and conversely disassociate from, a connection (TLMG), the claimed step of, “requesting a connection selected from the group comprising: continuous grant service, periodic grant service and aperiodic grant service” is anticipated. Note that joining or leaving a pre-established group (list) is not the same as making or breaking an actual connection. Moreover, the Examiner has not shown where in the reference each of these specific services is disclosed as claimed. Claim 8 should be allowed.

Claim 13 is currently amended to recite:

13. (Currently amended) A method of establishing a multicast connection in a centralized communication system, the method comprising:

creating multiple point-to-point connections between a source device and at least two destination devices;

replicating application data such that a replica exists for each destination device; and transmitting the replicas on the point-to-point connections;

wherein each connection is associated with a corresponding service access point of a transport layer of the source device;

each connection is associated with a corresponding transport layer port of the transport layer of the source device; and

each connection is assigned a connection identifier that is globally unique throughout the centralized network for use in routing data packets from the source device to selected ports in the

¹⁴ Office action, page 3.

destination devices. As discussed above, the last three limitations are not disclosed in the prior art of record. Claims 13-15 therefore should be allowed.

The examiner rejected **claim 16** under 35 U.S.C. § 102(b) as being anticipated by Birdwell (U.S. Patent 6,041,359). Claim 16 is amended to read as follows:

“16. (Currently amended) A method of ~~establishing a broadcast connection broadcasting a message in a centralized network~~, the method comprising:

requesting a bandwidth allocation from a central coordinator;

receiving an indication of ~~a time and size~~ of a bandwidth allocation on a dedicated broadcast channel within the centralized network; and

transmitting a broadcast message according to the bandwidth allocation ~~time~~ on [[a]] the dedicated broadcast channel of the centralized network so that the message travels directly across the network from the transmitting device to every other device on the centralized network without traversing an intermediary broadcast facility such that the broadcast message includes any information needed for processing of the received message.”

Birdwell does not disclose broadcasting a message in a centralized network. To the contrary, it employs a first “data network” 28 which is coupled to a “broadcast center” 26 which, in turn, broadcasts messages to remote “clients” 24. Because the “clients” are not connected to the network 28, the architecture is not *centralized* as that term is defined in this case.

Second, Birdwell does not disclose allocation of bandwidth *on a dedicated broadcast channel in a centralized network* as recited in the claim.¹⁵ Third, Birdwell teaches an intermediary “Broadcast Center” (Fig. 1) in between the source and destination devices; again, this is a manifestation of a non-centralized architecture.¹⁶ Squarely to the contrary, claim 16 calls for: “transmitting a broadcast message according to the bandwidth allocation ~~time~~ on [[a]] the dedicated broadcast channel of the centralized network so that the message travels directly across the network from the transmitting device to every other device on the centralized network without traversing an intermediary broadcast facility.” This claim is patentable over the prior art of record.

¹⁵ See the specification at page 22 for more detail of a preferred embodiment.

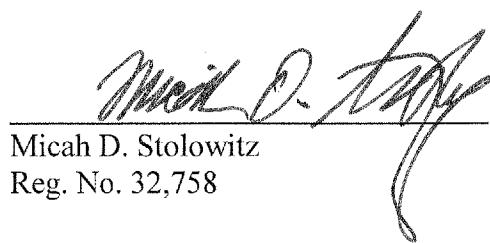
Conclusion

For the foregoing reasons, reconsideration and allowance of claims 3-16 and 23-29 of the application as amended is requested. The examiner is encouraged to telephone the undersigned at (503) 224-2170 if it appears that an interview would be helpful in advancing the case.

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Respectfully submitted,

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¹⁶ The wireless broadcasting of Birdwell is the antithesis of a centralized network architecture as there is no connection at all between the various “client” devices 24(1) ... 24(M).